DOCUMENT RESUME

ED 064 841 EC 042 575

TITLE	Transportation and the Mentally Retarded.
INSTITUTION	President's Committee on Mental Retardation, Washington, D.C.
SPONS AGENCY	National Center for Educational Research and Development (DHEW/OE), Washington, D.C.
PUB DATE	Jun 72
NOTE	61p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	Bus Transportation; *Exceptional Child Education; *Mentally Handicapped; *Surveys; *Transportation; *Travel Training

ABSTRACT

Reported were the results of a contract that involved identification, description, and categorization of the nature of transportation problems for the mentally retarded by means of analysis of existing studies, two surveys, and an inventory of specialized programs and systems operating in the United States. One major problem was found to be development of independent travel. The case for training the mentally retarded to travel independently included mention of success in travel training, problems in travel training, desire for independence, experiences with driver education, and burden on parents. Modes of transportation covered included walking, buses, bicycles, trains and planes. Training of individuals versus modification of equipment and other recommendations were made. The other major problem found was improvement of dependent travel. Mechanics of transportation reported included method of payments and costs, staff and volunteer resources, lease, buy or contract for services, safety, insurance, and scheduling. Modes of transportation covered were cars, vans, taxis, and buses. Eight recommendations, alternatives to transportation, and sources of government funding were reported. (CB)

ED 064841

TRANSPORTATION
and the Mentally Retarded

June 1972

THE PRESIDENT'S COMMITTEE ON MENTAL RETARDATION

EC 042 515

TRANSPORTATION
and the
MENTALLY RETARDED

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

The President's Committee on Mental Retardation
Washington, D.C. 20201

DHEW Publication No. (OS) 72-40

Cover Photo courtesy Great Oaks Center, Silver Spring, Md.

TABLE OF CONTENTS

	Refer to Page
RECOMMENDATIONS	1
INTRODUCTION	5
1. THE CONTRACT	5
2. METHODS OF PROCEDURE	6
THE PROBLEMS	11
1. DEVELOPMENT OF INDEPENDENT TRAVEL	11
a. The Case for Training the Mentally Retarded to Travel Independently	15
(1) Success in Travel Training	15
(2) Problems in Travel Training	16
(3) The Desire for Independence	17
(4) Experiences with Driver Education	17
(5) The Burden on Parents	20
b. Modes of Transportation	21
(1) Walking	21
(2) Buses	21
(3) Bicycles	21
(4) Trains and Planes	22
c. Recommendations for Action	22
(1) Training of Individuals vs. Modification of Equipment	22
(2) Recommendations	24
2. IMPROVEMENT OF DEPENDENT TRAVEL	25
a. Mechanics of Transportation	25
(1) Method of Payments and Costs	25
(2) Staff and Volunteer Resources	28
(3) Lease, Buy or Contract for Services	31
(4) Safety	31
(5) Insurance	32
(6) Scheduling	33
b. Modes of Transportation	34
(1) Cars	35
(2) Vans	35
(3) Taxis	36
(4) Buses	37

c. Recommendations for Action 37

(1) Modification of Equipment 37
(2) Development of Specialized Systems 38
(3) Training of Transportation Personnel 41
(4) Legislation 41
(5) Development of Coordinated Center 41
(6) Integrate Transportation Into Other Activities 42
(7) Develop Rural Resources 44
(8) Federal Programs of Interest to the President's Committee on Mental Retardation 45

3. ALTERNATIVES TO TRANSPORTATION 47

SOURCES OF GOVERNMENT FUNDING 49

1. Federal 49
2. State 53
3. Local 54

SELECTED BIBLIOGRAPHY 55

RECOMMENDATIONS

	Refer to Page:
Modify Perceptions of Capability of Retardates for Independent Travel	
• Teach, train and expect the majority of mentally retarded individuals to travel independently	15-20
Modifications of Public Transportation Systems	
• Provide public "bus phones" in heavily trafficked areas so that people can call for bus service information. Phones would indicate to the operator the location of the caller.	24
• Provide city maps with color coded routes marked on them at major bus stops. Buses would be marked by color, as well as name and number. Location of the viewer should be indicated as well as major landmarks along routes.	24
• Train public transportation personnel to recognize mentally retarded individuals, to understand their capabilities and limitations and to offer appropriate assistance.	25
Modifications in Public Education	
• Provide sufficient staff and time for travel training in all agency and school programs serving the mentally retarded.	24
• Schools and agencies should provide in some way, either through special classes or home teachers, driver education to those retarded individuals who are capable of driving.	24
• States should require that all children, including the handicapped and mentally retarded, be educated. (This is not currently required in all states.) The retarded should have special programs available, whether or not in a regular school program, especially in the areas of "social survival", travel training and driver education.	25

- Local school systems should consider the consolidation of all "special" education programs for physically and mentally handicapped children. 41

Modifications in Agency Operations

- Utilize time spent on long bus rides as a part of the education process. 37
- Equip vehicles with cassette tape players to continue the education process. 38
- Train drivers and aides in special problems of the mentally retarded. 41

Development of Specialized Transportation Systems

- Encourage formation of small companies or utilize public companies to provide special services for the mentally retarded, such as "Dial-a-bus" or taxi bus services. 38

Legislation

- Federal legislation is needed to enable DOT to subsidize non-routed systems for the handicapped. 41
- State legislation should require enforcement of safety features, especially concerning seat belts, attendants, brakes, training of drivers. 41
- State legislation providing transportation should be flexible so that children may be best served. 41
    - For example, if a bus for handicapped children is provided after school and handicapped children are required to ride it, then the child may be unable to participate in a special after school clinic program because he must be at the school to ride the bus.
- Amend Public Law 88-156, to require states to include transportation in their written plans for comprehensive services for the retarded. 44

Development and Encouragement of State and Local Planning and Coordinating Councils for Services to the Retarded

- Local councils should foster cooperation and joint planning for transportation between sources of service. 44

- Special efforts should be made to develop transportation resources in rural areas. 44

Guidance to Federal Programs having an Impact on the Mentally Retarded

- Monitor and advise Federal programs such as Urban Mass Transportation Managerial Training Grants and Handicapped Teacher's Education on the problems and potential of the mentally retarded. 45

INTRODUCTION

1. THE CONTRACT

This report is the result of a contract executed June 17th, 1971, between the President's Committee on Mental Retardation and Harold F. Wise & Associates of Washington, D. C., to study transportation and the mentally retarded.

The contract spells out the basic requirements to be met by the contractor.

> There will be two end products of the study, an inventory of special transportation systems and programs for the mentally retarded, and a final report. The inventory will include a description of the service, location, contact people, phone number, etc., and is intended as a resource guide for those interested in establishing similar services in their area. The final report will include the results of surveys conducted and problem areas uncovered. It will formulate action recommendations to help resolve problem areas uncovered.
>
> The products of this study will give informational guidance and provide future direction to those authorities who are designing transportation systems. Further information can be made available to special educators, rehabilitation planners, and other public and private organizations concerned with transportation services for the mentally retarded.

The scope of services includes the following tasks:

I. Research Available Studies and Materials

The first stage of the study will be to identify, describe and categorize the nature of transportation problems for the mentally retarded through analysis of available research studies and material. The material that is used for study and analysis will be included as a bibliography in the final report.

II. Survey Special Transportation Needs and Problems

To further identify the specific transportation needs and problems of the mentally retarded, two surveys will be conducted. A specially designed questionnaire will be designed

and administered to the mentally retarded, their family, their employers, and others who are familiar with the problems of the mentally retarded. One survey will be administered in an urban area and one in a rural area. The areas selected for the surveys will be those as agreed upon by the President's Committee.

III. Inventory Transportation Programs and Systems for the Mentally Retarded

In order to identify available transportation for the mentally retarded, an inventory will be conducted of specialized programs and systems operating in the United States. On-site visits will be conducted for the most promising programs and systems. Results of this inventory will comprise one of the two end products of this study.

IV. Develop Action Recommendations for Resolving Transportation Needs of the Mentally Retarded

Specific recommendations will be developed for resolving transportation needs of the mentally retarded. Areas to be covered will include: modification of equipment, development of specialized systems, special training for transportation personnel, safety requirements and legislation. The recommendations will be geared toward practical solutions and financial availability.

2. METHODS OF PROCEDURE

Questionnaires were developed to determine methods of transportation, problems and costs. A copy of this questionnaire is in Appendix A. Ten were sent to a variety of urban agencies in the Metropolitan Washington, D. C. area providing a wide range of services from private schooling to public. Additional questionnaires were sent to rural agencies in Maryland. These agencies tended to be more homogenous, mainly day care centers receiving some state assistance. The agencies responding to the questionnaire are listed:

Washington County Day Care Center
for the Mentally Retarded, Inc.
P. O. Box 109
141 South Potomac Street
Hagerstown, Maryland 21740

Forest Haven, Bureau of Developmental
Disabilities
Mental Health Administration
Children's Center
Laurel, Maryland 20810

St. Gertrude's School of Arts and Crafts
4901 Sargent Road, N. E.
Washington, D. C. 20017

Montgomery County Association for Retarded
Children, Inc.
Day Center
11212 Norris Drive
Silver Spring, Maryland 20902

Melwood Horticultural Training Center, Inc.
5606 Dower House Road
Upper Marlboro, Maryland 20870

Arlington Adult Activity Center
3507 Columbia Pike
Arlington, Virginia 22202

Chesterwye Day Care Activity Center, Inc.
Stevensville, Maryland 21666

The Harford Center
20 North Main Street
Bel Air, Maryland 21014

Cecil County Mental Retardation Services, Inc.
Day Care Training Center
P. O. Box 572
Elkton, Maryland 21921

Wicomico County Teen-Adult Activity and
Development Center, Inc.
Route 1, Box 40
Mardela Springs, Maryland 21837

Angel's Haven of Kent, Inc.
Betterton, Maryland 21610

St. John's Child Development Center
5005 MacArthur Boulevard, N. W.
Washington, D. C. 20016

In addition, another questionnaire was developed with the aid of the President's Committee on Mental Retardation to determine state expenditures on transportation, the number of retardates, laws concerning driving by mentally retarded individuals and the number of retarded in the state. This questionnaire was sent to 17 of the coordinators of state programs for the mentally retarded. Six states responded. They were:

- Pennsylvania
- Connecticut
- Ohio
- California
- Minnesota
- Massachusetts

Many people were contacted in the search for literature and information. Among those people spoken to who were most helpful were:

> Dr. Paul Benoit, of Vocational Rehabilitation Administration, for his help in identifying initial problems.
>
> Dr. Arnold D. Cortazzo, of the Sunland Training Center in Florida for his experience in travel training.
>
> Mrs. Joyce Parris, of Information Services, Council for Exceptional Children, for her help in locating literature.
>
> Mr. Earl Copus of the Melwood Horticultural Training Center for his enthusiastic attitude, optimism and proof of the capabilities of the retarded to lead normal lives.

Visits were undertaken to programs providing preschool training for 3 to 8 year olds, recreation programs for 8 to 16 year olds and a vocational training center for young adults.

As additional people, companies and agencies came to our attention as sources of information, they were contacted. This report is not a comprehensive

document. It is an initial problem statement. Sources of information listed are provided as a place to start looking, not as the only or best source. No endorsements are intended.

THE PROBLEMS

In studying transportation problems of the mentally retarded, it quickly becomes apparent that there are two major problem areas:

1. Development of Independent Travel
2. Improvement of Dependent Travel

The first concern about independent travel results from the dependence of the mentally retarded on others for transportation for their entire lives. The tragedy of this dependence is that in most cases it is not necessary. The mentally retarded have been trained to travel independently on public transportation, to drive automobiles, and even to drive buses. The retarded <u>are</u> capable of traveling independently - even those with very low I.Q.'s - and should be trained to their maximum capability.

The second problem, that of dependent travel (or that which is provided by others specially for the retarded), is a product of those mental retardation programs which draw from a broad geographic area and thus concentrate adequate resources. The primary constraint in the provision of services, especially in low population density areas, is transportation. (The problem of dependent travel is thus one of immediate concern for those agencies which provide transportation for the retarded.) Some agencies legitimately cannot expect their clients to use public transportation. The clients are too young, too retarded (profoundly or severely) or perhaps too far from public transportation. Other agencies whose clients do not utilize what transportation is available because of resistance from staff or families, are depriving their clients of the opportunity to become as independent and "normal" as po sible.

1. DEVELOPMENT OF INDEPENDENT TRAVEL

Transportation is a part of all programs for the mentally retarded.

Schools, recreation programs, vocational education programs, day care and activity centers all acknowledge the problem of transportation. Some spend up to 50% of their budget on it. Some agencies provide bus or car pickup, others rely on parents, volunteers, or friends for transportation; some organize car pools, still others rely on public transportation. No matter what the agency's transportation policy is, transportation affects it in terms of personnel, time, money or equipment. If no transportation is available, some potential clients are not able to benefit from the program.

Yet, as desirable as programs and their transportation components are, people who are mentally retarded cannot spend their entire life in "programs." Just as people of normal intelligence and development have a variety of needs and interests, so do the mentally retarded.

Many take jobs as orderlies, busboys, kitchen workers, maids, factory workers, etc. They need transportation. They need transportation to recreation, whether it be a baseball game or a visit to a beach. Transportation may be needed to participate in religious services and activities or to visit friends and relatives. It may be necessary to shop outside of the immediate neighborhood. These are common, everyday activities. If a mentally retarded person must depend on the kindness and availability of a neighbor or relative to meet his needs, his life quickly becomes very limited.

Parents and agencies caring for young retarded children should begin early to train for independent travel. Even if it requires many months for a segment of knowledge to be acquired, the value throughout the person's lifetime will be well worth the effort even as toilet training is a laborious but essential process. A child must be able to enter a building alone, to

cross a street, and to ride a bus. If necessary, the child must learn to transfer. Bus drivers frequently recognize regular customers and help out in difficulties.

> "The ability to use public transportation is considerable qualification for membership in the society of those who are active. It is the ability that can most contribute to the enrichment of the life of the retarded. If this ability is not taught him through timeless effort when he is small, his life will get poorer and poorer as the years go by because those around him will be ever less willing to accompany him and thus provide him with change and stimulation. As parents get older, their strength diminishes, and no one takes their place to accompany the meanwhile grown-up mentally retarded individual."1/

It would seem, then, that the ideal solution to the problem of transportation dependency would be to encourage travel independence. The problem, of course, is the feasibility of travel training for the mentally retarded. Dr. Arnold Cortazzo, Superintendent of the Sunland Training Center in Miami, and Robert Sansone of the New York Department of Mental Hygiene, have participated in the development of travel training programs. Their experience reveals that I.Q. was not an important criteria for success, and trainees who demonstrated I.Q. scores as low as 12 to 18 learned to travel successfully.2/

It will be argued vigorously that travel training is not an appropriate transportation solution for all mentally retarded people, but it certainly can be used much more extensively than it has been. If people with I.Q.'s as low as 12 to 18 can be trained, then why are people with I.Q.'s of 50 to 80 not being trained to travel independently as a matter of course? If all mentally retarded with I.Q.'s over 20 can be trained to travel, 98.5% of mentally retarded persons can be so trained. The potential for expanded

---

1/ Egg, Maria. The Different Child Grows Up. John Day Co., New York, N.Y., 1965, p. 63.

2/ Cortazzo, Arnold and Sanson, Robert. Travel Training. p. 6

life opportunities through travel training must not be ignored.

The following chart incorporates results in travel training with generally accepted statistics as to percentage of retardates at various I.Q. levels.

Percentage of Retardates	Amount of Retardation	Approximate I.Q. Ratings	Success in Travel Training	Cumulative Total (Reading Down)
89%	Borderline	68 - 83	Successful	89%
	Mild	52 - 67	Successful	
6%	Moderate	36 - 51	Generally Successful	95%
3.5%	Severe	20 - 35	Limited Success	98.5%
1.5%	Profound	0 - 20	Difficult but Possible	100%

Yet, in spite of widespread commitment to "developing maximum potential," "decreasing dependence," and "developing adult attitudes," many professional staff and parents do not expect the mentally retarded to be capable of independent travel. And, living up to expectations, the retarded are not capable of independent travel. The unfortunate alternative then becomes providing special transportation and assistance. This may result in this picture painted by Dr. Maria Egg in her book, The Different Child Grows Up:

> "an elderly woman, bent by sorrow, who drags behind her, by the hand, with the last strength of resignation, her graying, elderly, retarded child."

It is recognized that not all programs have a public transportation system, and that certain individuals such as the profoundly retarded are not capable of independent travel. This does not mean that each client should not be trained to his maximum capability.

a. The Case for Training the Mentally Retarded

It is curious that of the twelve agencies in our survey serving trainable adults, only one expected clients to travel independently. That agency requires its clients to come by public transportation to a pick-up point then, due to the agency's rural location, the clients are taken by agency bus to the center. The agency expects travel skills and aids in their development. They also teach driver education.

Unfortunately, the lack of expectation by the other eleven agencies is probably typical of the rest of the country. The majority of agencies do not expect individuals to be capable of independent travel and consequently, they are not capable. Yet, some agencies do provide travel training and are successful.

(1) Success in Travel Training

Arnold Cortazzo, formerly Superintendent of Sunland Training Center in Miami, and Robert Sansone of the New York State Department of Mental Hygiene, developed and implemented a travel training program in day activity programs. They worked with trainable retarded adolescents and young adults between the ages of 17 and 40. I.Q.'s ranged from 12 to 55 and the mean I.Q. was 33. Of the 378 trainees, 199 learned to travel independently. The most critical criteria for success in trainees were social maturity, emotional stability and parent's cooperation. Trainees with I.Q. scores as low as 12 to 18 learned to travel successfully. When working with staff members who

revealed that they were discouraged over lack of the trainees' progress, the trainees soon reflected this attitude and stopped trying.

The Melwood Horticultural Training Center serves educable and trainable clients who come from a large geographic area. They are expected to take public transportation to a pick up point (beyond which there is no public transportation). Even with pick up points, the Center has 6 buses which travel 75 to 100 miles a day. Thus, independent travel is a necessity for the vocational training the Center offers. And it works.

(2) Problems in Travel Training

The first big problem in teaching travel training is the lack of awareness that it can even be done. One agency contacted by phone indicated excitement over the possibility of travel training. Parents and staff alike frequently resist the idea. Conviction is a prerequisite.

The second biggest drawback to teaching travel training is the lack of public transportation.

- "There are no trains or local buses in this area, interstate buses are few each day, taxis are few. Retarded or not, in this area, you have to walk or have a motor vehicle at your disposal or stay where you are."
- "The biggest problem we face is lousy public transportation."

The only way to overcome the problem is to use what is available and then supplement or start your own. Another problem expressed in our survey was the lack of a sufficient number of workers to reach all clients with the potential for independent travel. A solution to this might be to reorient priorities.

Getting to a job is certainly every bit as vital as being able to perform once there.

One agency responded that their problem in teaching travel training was that parents don't allow children to practice learned skills when school is not in session.

(3) The Desire for Independence

The retarded individual is more like the normal individual than unlike the normal individual. Thus, he is anxious to be as independent as possible. He wants to do as much as possible himself and this includes the ability to travel by himself. If he must wait until someone is ready to help him, he is inconvenienced. If he must rely on someone to chauffeur him, he may be unable to take a job he is capable of performing well. Moreover, his self concept has been unnecessarily lowered.

Children, riding a bus painted "School for the Retarded," are embarrassed. Every time someone provides transportation for him, the branding goes deeper. For a mildly retarded child, who can most likely grow up and blend into the general population, this restriction in development is inexcusable.

Those retarded young men who have gone through driver education at one of the agencies we visited, are proud of their accomplishment. A few have saved enough for a car and take a great deal of pride in their ability to "be like everybody else."

(4) Experiences with Driver Education

Two agencies we know teach driver education with good results. One of these is the Melwood Horticultural Training Center. The county provides driver education as a part of its regular program and for

those students unable to participate in the regular program, teachers are provided. One has been assigned to the Melwood Center. Driver education is taught at night so that those students who are employed can attend. The material that is taught is the same as regular students learn but it is geared toward non-readers. The experience has been that it takes approximately twice as long as the regular school course. Those in the voluntary driver education course have I.Q.'s in the 60-70 range and take a great deal of pride in their participation. A textbook for use by slow learners is Basic Driver Education by I. Bonner, R. Gutshall and Francis C. Kenel. It costs $2.50, comes in paperback, and can be obtained from Interstate Printers and Publishers, 19-27 N. Jackson Street, Danville, Illinois. One trainee at Melwood went through the course, passed his test, and is now picking up other trainees who are employed at the same place he is. Thus, he has not only become an independent traveler, but he has also solved the transportation problem for 3 or 4 others.

Another agency teaches map reading, safety regulations and the driver education manual.

Robert Egan[1/], on the other hand, from several years of observations and tests has attempted to determine the wisdom of teaching the retarded to drive. Intelligence in the educable mentally retarded group (EMR's) ranged from 47 to 75. EMR's did as well as control groups on visual acuity and sight vision tests, but they did much poorer on distance judgment tests, as well as complex reaction and steadiness results. The EMR's could be coached to pass the driver's test, but indicated an inability to react quickly in tight situations.

1/ Robert Egan. "Should the Educable Mentally Retarded Receive Driver Education?" From Exceptional Children, v. 33, no. 55, 1967, p. 323.

Thus, he concludes, the mentally retarded lack an important mental capability for driving, and they should not be encouraged, as a general rule, to drive.

Dr. Francis Kenel, who has worked intensively in the area of driver education for the retarded, responds to Robert Egan's conclusions by questioning the type of driver education in which the retarded were trained. He has encouraged the use of visual orientation to the environment rather than a reliance on traditional approaches to driver education. He finds that the records of mentally retarded drivers are not significantly different from those of normal persons. Further, he states that the mentally retarded driver is a better driver than a person of above average I.Q.

State laws do not prohibit licensing of the mentally retarded, as is indicated by the replies to our questionnaires from Connecticut, Ohio, Minnesota, California and Massachusetts. Massachusetts General Laws, Chapter 90, Section 8, states that:

> "no license shall be issued until the registrar or his authorized agent is satisfied that the applicant is a proper person to receive it."

The questionnaire indicated that there are no special licensing or training laws relative to the mentally retarded in Massachusetts. The above law gives the registrar the prerogative to develop "in house" policy with regard to licensure. If the mentally retarded individual has been institutionalized, a letter of recommendation for licensure from the superintendent of the institution is usually required. Generally, if the mentally retarded individual passes the written and road tests taken by all other citizens of the Commonwealth, he is granted a license.

Responses from California indicate that the legislature has authorized additional state money to extend the amount of time that can be devoted to a handicapped youngster, including the mentally retarded, in behind-the-wheel training.

(5) The Burden on Parents

The main focus and interest of agencies is rightly on the mentally retarded individual. But consideration must also be given the family. As individuals they, too, have needs. The better their needs are met, the more they can do for the mentally retarded member.

Providing transportation is a tedious, time-consuming task for the family. Some of the comments from our questionnaire reveal that:

- Many parents have been driving their children to various programs for 15 years or more.
- Those who do not drive at all have to rely on others (parents, friends).
- Some parents drive up to 50 miles a day to bring their children to the programs.
- Transportation must be arranged for those whose families who have no cars or who do not like to drive at night or in traffic.
- Parents have felt obligated to move in order to be accessible to facilities serving their mentally retarded child.

In response to our question, "What problems the multi-handicapped entailed for the agency," one especially revealing coment was: "none - our one client who is multi-handicapped is transported by parents."

Agencies (serving both normal children and mentally retarded children) must also be aware of the needs of their clients whose parents frequently seem unwilling to assume the burden. One agency told us that 50% of its children

were ready - some not out of bed - when the van arrived to pick them up. In other cases, a parent had to be located before the van could leave the child on his return.

b. Modes of Transportation

(1) Walking

Walking is likely to be the most frequently used mode of transportation and the mentally retarded individual should be trained to do it safely and independently. The State Department of Education in Maryland is developing curriculum in the area of safety education and has units of training techniques developed for teachers in areas of "space, time and distance relationships," signal lights, intersections, and yielding the right-of-way.1/ A thesis on "Perception of Traffic Hazards: A Comparative Study" was done by Kenard McPherson and Frank Kenel at Illinois State University.2/

(2) Buses

Independent travel on public buses provides freedom. The person can go anywhere the bus goes. Buses are generally dependable, fare is cheap and bus drivers helpful.

Problems include learning to transfer, unexpected changes in scheduling and infrequent or unavailable service.

(3) Bicycles

Our literature search and survey revealed nothing about the use of bicycles as a mode of transportation. We suspect that a bicycle would be an ideal form of transportation for some adults. Given the current

1/ The mailing address is: State Department of Education, Safety Education and Transportation, ITI Building, McCormick Road, Schilling Circle, Cockeysville, Maryland 21030.

2/ Kenard McPherson is now a consultant in the State of Washington and Frank Kenel is at the University of Maryland in College Park.

popularity of bicycles, there would certainly be no stigma attached to this mode of transportation.

Older children should be taught to use bicycles as a part of travel training. Included, of course, would be safety rules, street sign identification, procedures for asking directions if lost, etc.[1/]

An idea, beginning to take hold for shoppers, that the retarded might adopt, is an adult tricycle. It can be used to carry packages as well as people. Three-wheel stability reduces the need for simultaneous judgments required to react to traffic and maintain balance.

(4) Trains and Planes

Again in our survey and literature search, train travel and plane travel were most conspicuous by their absence. These modes are not used for daily trips in the geographic areas of our survey, although train or subway travel may be used by the retarded in a city such as New York. These forms of travel are not difficult. Airline personnel are trained in such a way as to be especially helpful.

Because of the conspicuous lack of use, a field trip to visit a train station or airport at off-hours might well be an important educational experience.

One of the most exciting ideas we learned of in our visits was a plan to take a group of young retarded adults around the world. (Melwood Horticultural Center)

c. Recommendations for Action

(1) Training of Individuals vs. Modification of Equipment

The problem of transportation for the mentally retarded is not primarily physical, although there are problems of lack of coordination

1/ The Maryland State Department of Education (addressed in footnote in section on pedestrians) also has developed a 64 page, 4 color programmed learning booklet called Bike Basics. It is designed for use by second graders but is adaptable to any older age group.

and physical fitness. Steps and curbs for the vast majority of the mentally retarded people are not a great problem; the shapes and sizes of seats are not a great problem; walking, and moving quickly are not problems. The problem is primarily one of comprehension as to when such activities are appropriate. No matter the physical aspects of the conveyance, the mentally retarded person must be taught to use it. Thus, the problem is one of training the mentally retarded individual, rather than seriously modifying equipment.

Modification of equipment is an improvement that would most benefit those mentally retarded people who are also physically handicapped -- a small percentage of the total mentally retarded population. Since there are also many physically handicapped people who are not mentally retarded, equipment modification certainly deserves serious consideration.

Problems cited in our survey concerned loading: the time involved, a lack of loading steps, need for portable wheel chairs, and much assistance.

A great deal of work has been done in physical modification of vehicles and facilities to more easily accommodate the physically handicapped. ABT Associates, Inc. of Cambridge, Massachusetts, has reported on problems of transportation of the physically handicapped and solutions to these problems.1/ Suggestions include guidelines for removing existing travel barriers involving:

- rapid self-locomotion
- fare collection
- sudden movement
- long stairs
- crowds
- seating
- aisle and doorways
- short steps
- long walking distances
- escalation

1/ ABT Associates, Inc. Travel Barriers, Transportation Needs of the Handicapped. Prepared for DOT, Office of Economic and Systems Analysis. Cambridge, Massachusetts. August 1969. 207 pages.

A more specialized study on the transportation of physically disabled students has been done by the Human Resources Center in New York.[1]/

For additional sources of information, consult Bibliographic List #1, Transportation for the Handicapped, Selected References. Department of Transportation, Office of Administrative Operations, Library Services Division, Washington, D. C., November 1969.

Modifications in equipment that would be helpful to the mentally retarded are those that simplify use of the system. The following suggestions would be helpful in doing this:

- Public "bus phones" in heavily trafficked areas so that people can call for bus service information. Phones would indicate to the operator the location of the caller.
- City maps with color coded routes marked on them at major bus stops. Buses would be marked by color, as well as name and number. Location of the viewer should be indicated as well as major landmarks along routes.

It should be mentioned again, that everything done to simplify the transportation system for the mentally retarded also either increases access to the system or simplifies it for many other people.

(2) Recommendations

1. Provide sufficient staff and time for travel training in all agency and school programs serving mentally retarded.

2. Schools and agencies should provide in some way, either special classes or home teachers, driver education to those retarded individuals who are capable of driving.

1/ Yuker, Harold E., Feldman, Martin A., Winick, Arthur C., and Lewis, Myrna. The Modification of Educational Equipment and Curriculum for Maximum Utilization by Physically Disabled Persons. Human Resources Center, Albertson, N. Y. Study #10, 1967, 30 pages.

3. Train public transportation personnel to recognize mentally retarded individuals, to understand their capabilities and limitations and to offer appropriate kinds of assistance.

4. States should require that all children, including the handicapped and mentally retarded, be educated. (This is not currently required in all states.) The retarded should have special programs available, whether or not in a regular school program, especially in the areas of "social survival", travel training and driver education.

2. IMPROVEMENT OF DEPENDENT TRAVEL

A second, distinct, aspect of transportation for the Mentally Retarded is the provision of special transportation, in cases where it is impossible to encourage and develop independent travel habits.

a. Mechanics of Transportation

No matter which mode of dependent transportation is to be used, expense and time are entailed. Methods of payments, the use of staff and volunteer resources, leasing vs. buying vs. contracting for services, safety, insurance and scheduling, must all be considered.

(1) Method of Payments and Costs

When we asked states the amount spent on transportation of the retarded, the responses were similar: "That information is not available." Although combined figures were available for the amount of funding allocated for transportation of the handicapped and the mentally retarded, no states were able to supply figures for transporting the mentally retarded alone.

In addition to the problem of separating out the mentally retarded from the handicapped, there is the problem of separating out departmental allocations. In Massachusetts, for example, agencies providing transportation for the handicapped and the retarded are the Department of Education, the Rehabilitation Commission, the Department of Public Welfare and the Commission for the Blind.

The third separating out problem is the delineation of transportation out of the programs encompassing other kinds of services.

Our agency questionnaires provided much firmer information on methods of payment. They revealed that methods of payment and of transportation varied considerably:

- Day Care agency receives $2.80 per child per day from State (stationwagon use)
- Parents assume financial responsiblity (public transportation and private cars)
- Parents provide partial payment (use Ford Club Wagons)
- Residential Institution receives undetermined State appropriations
- Transportation is supplied as part of program at 30% of the budget (use vans)
- State provides funds (staff uses private cars)
- School supplies transportation to training programs which State pays for (use small buses)
- State funds and local taxes pay contracted carrier for public school program (use 16 passenger vans)

The agencies answering our questionnaire variously estimated the cost of transportation at:

• By car - 10¢ a mile	-	$1.00 per person per day
• By bus - 40¢ per trip	-	.80 " " " "
• By contracted public transit	-	1.60 " " " "
• By small school buses	-	2.54 " " " "
• By vans - door to door	-	3.00 " " " "
• By private car	-	2.80 " " " "

Agencies sometimes have the option of providing transportation free to parents or charging a fee. If the former course is taken initially and proves financially devastating, it is difficult to charge a fee later. If the agency has set a fee for providing transportation, it should be determined at the entrance of the client to the program how much of the fee the parents can afford to pay. If the parents are unable to pay, an effort can be made to get a service club or other organization to provide for the transportation of the child.

The Cincinnati Public Schools provide two bus tokens per day to mentally retarded pupils living more than 1-1/2 miles from a pupil's assigned school. In cases where families may wish to provide their own transportation, arrangements may be made for partial reimbursement.[1]/

The State of Michigan provides 75% of the actual cost for transportation. Up to $200 per pupil is paid for each pupil living 1-1/2 miles or more from the school in which he is enrolled in an approved program for the mentally handicapped.[2]/

1/ Guide to Practices and Procedures for the Slow Learning Program in Elementary Schools. Cincinnati, Ohio. 1965. p.8

2/ How Michigan Serves the Mentally Handicapped, Facts About the Administration of the Michigan Program. Michigan State Department of Education, Lansing, Michigan. August 1966, p. 4.

California reports that:

"The amount of state funds allowed for transportation of mentally retarded pupils is restricted to the trainable or moderately mentally retarded. The amount of money is (annually) approximately $375 per average daily attendance. The average cost of transporting an educable mentally retarded child is computed the same way as it would be for any regular child since there are very seldom special provisions made for the educable mentally retarded in the public schools. It is possible, however, to charge transportation expense to the operation of the program for either the educable or trainable and they are allowable state expenses or operation expenses out of local funds."[1]/

(2) Staff and Volunteer Resources

For agencies not able to encourage use of public transportation due to lack of public transportation, alternatives must be developed. One of these is utilizing either staff or volunteers or some combination of them both.

Drivers of vehicles must understand the problems of the children or adults they are transporting and be able to enforce rules of conduct which will permit them to drive safely.

Aides can be useful in settling discipline problems which distract the driver. Hyperactivity is sometimes a problem causing dangerous incidents for the driver. Aides can ensure safe delivery and pickup of children by holding the child's hand when he is moving between the bus and the parent. They can assist in emergencies such as epileptic seizures. Younger children get into fights and very small children sometimes fall asleep after a long day.

If aides are not available, two-way radios on vehicles transporting

1/ Questionnaire from Department of Education.

children have proven extremely useful in emergencies.

- Volunteer Organizations

  Many organizations are willing to sponsor a project on an ongoing basis. A good selling job may net the volunteers and/or the equipment needed. Telephoning, coordinating, scheduling, driving, and aides, can all usefully supplement the program. Money and green stamps, for the purchase of vehicles, frequently are godsends. Car pools can be completely manned and coordinated by volunteers, including planning for substitutes.

  In one community, the Red Cross provided a station wagon and the fire company provided drivers. In another area, the Salvation Army was willing to use their bus but needed to have a person with a chauffeur's license to drive it.

  Agencies might check with the following groups to see if any might be willing to help:

  - Interagency Council planning for transportation
  - Red Cross
  - YMCA and YWCA, YMHA and YWHA
  - Local high schools
  - Military installations
  - Firemen
  - Policmen
  - Girl Scouts, Boy Scouts

- Women's Groups
- Churches
- Fraternal Organizations -- Masons, Knights of Columbus
- Men's Associations and their Women's Auxilliaries -- Lions, Elks, Moose, etc.
- 4-H Clubs, J.C.'s Optimists
- Veteran's Groups
- Youth Groups -- Future Teachers, Future Nurses
- PTA

Business Organizations

- A car dealer may donate cars in exchange for advertising his name on the door.
- Bus or Taxi Company Presidents may make helpful members of the Agency's Board of Directors

Remember, though, even if volunteers are used, there will be expenses such as postage, long distance calls, insurance and gas costs.

One major problem involved with volunteers providing vehicles or in transporting retarded individuals is the insurance. Sometimes the volunteers' insurance company does not cover either the vehicle or the volunteer while engaged in transporting children. (See section on Insurance.)

In arranging volunteer services[1]/ agencies should be sure to:

- assign someone specific responsibility for assigning drivers to particular participants
- provide for several drivers for one child if necessary
- provide for on-call substitutes
- explain assignments so that they are specific and clearly understood

1/ From Opening Doors to the Cerebral Palsied through Day Care and Development Centers, United Cerebral Palsy Associates, Inc., New York, N. Y., 1964, page 6.

- accept only drivers that are likely to be reliable

(3) Lease, Buy or Contract for Services

In considering the pros and cons of leasing, buying, or contracting for services, it is well to consider short term as well as long term resources and responsibilities. A lack of immediate working capital in a beginning program may dictate contracting for services until the full capacity of the program is known. If needs are known, but large amount of money are not available, perhaps a lease purchase agreement is most advantageous.

In terms of control and cost, ownership of equipment may be most advantageous. It lacks flexibility, however, if the need is not constant. A major problem arises when the equipment breaks down. A contract for servicing and maintenance may well be a wise investment.

Competitive bidding or at least comparison shopping will be of value in reducing possible costs.

(4) Safety

A vital factor in any transportation process is safety. The American Academy of Pediatricians endorsed nine minimum safety standards for vehicles transporting children which were recommended by the Institute of Traffic and Transportation Engineering of the University of California in Los Angeles. Those minimum standards are:

(1) Lap type seat belts

(2) Backs of seats at least 28 inches high to support the head

(3) Seats firmly anchored

(4) Minimum of half-inch thick padding on all rigid structures

(5) Collision-resistant structures at truck and car bumper heights

(6) Safety windows that don't pop out on impact

(7) No rigid protruding structure inside the vehicle

(8) A seat for every child, no standees during transport

(9) Four full-size emergency exits on buses

It was also noted that children should have bus drills to learn to use emergency exits.

One issue that should be raised about the safety standards is that of the ability of half inch padding to absorb energy. Various kinds of padding materials would absorb energy at various rates. Requirements should be stated in terms of speed and weight conditions under which injury can be avoided.

In Maryland, the same minimum school bus safety laws that apply to normal use school buses also apply to vehicles which carry handicapped children. In view of added dangers of wheel chair spokes, etc., we question the lack of special regulations. A larger gap appears, however, in the matter of private schools in Maryland. No specific laws cover their transportation practices at all; not even flashers are required.

(5) Insurance

One potential weak spot in agency operations is obtaining proper insurance. State laws should be checked to ensure that basic requirements are being met. Volunteers and paid staff should be

covered as well as individual's cars or agency-owned vehicles.1/ Frequently, school systems have their special programs insured under their regular insurance, but small private agencies have difficulties. In Illinois, school districts have been held liable by courts for students injured and killed in a school bus accident. Adequate insurance coverage is a must, whatever method or device is used for transportation. Volunteers should be informed of their liability.

(6) Scheduling

Problems generally encountered by programs for the mentally retarded include the widely scattered location of children in the community and resulting long bus rides. If a large vehicle is used, some children may be riding for two hours before reaching the site

1/ Light and Rubin, Inc., 87 Nassau Street, New York, N. Y. 10038, have provided automobile coverage for volunteer transportation workers. The following statement was received from them:

> "In working with this type of organization we have discovered the primary need for insurance protection to be in the "Third Party" liability area.
>
> This would include coverage for Public Liability, Auto Liability and Malpractice. We issue this insurance to cover the Agency or Association, its Executive Officers acting within the scope of their duties, employees and further extend the insured persons to include 'Volunteer Workers'.
>
> Workmens Compensation insurance provides unlimited Medical expenses to employees hurt as a result of job related accidents. This is mandatory coverage for all employers to maintain on behalf of their employees. At the option of the Association this policy can be extended to include volunteer workers for both premises and transportation exposures. This could be considered accident medical expenses for the volunteer workers.
>
> We provide Auto Liability to cover donated or volunteer vehicles on an excess basis over any other collectible insurance. The first or primary loss would be paid by the insurer who covered the vehicle for the volunteer owner. If this was insufficient or not available our policy would respond."

of the program. Consideration should definitely include the amount of time spent by any given child getting to the school or to the services. If possible, the use of several smaller vans may be a preferable alternative. If buses are used and a few children in remote areas cause appreciably longer distance, perhaps taxis or volunteers could be utilized so that the bus is not required to cover long distance for one child.

Attention should be paid to situations where special funds are allocated for school transportation of special students and route overlapping occurs with the regular school bus.

b. Modes of Transportation

Agencies and individuals currently use the full range of transportation available, using various combinations of vehicles and various forms of organization mechanisms.

The agencies in our survey utilized:

- Rented passenger cars
- Rented 10-passenger-stationwagons
- Small school buses
- Public transportation to and from pickup point
- Contracted public transportation (full size buses)
- Car pools
- Vans - door to door
- Staff cars

The biggest difficulty is providing transportation in a small program

for the relatively few clients who need to be transported in a prone position or in wheel chairs. A larger program can justify an appropriate vehicle by the larger number of clients requiring this mode of transportation.

The following section deals with the most common modes of transportation used in Dependent travel.

(1) Cars

Cars have the advantage of being generally easily available and multifunctional. They afford privacy and relatively easy access. Their disadvantages include difficulty in carrying people in wheel chairs, limited capacity, and as a result, a need for more cars and particularly more drivers. One of the agencies in our survey reported that the hyperactivity of clients causes the driver to be distracted.

Many solutions have been found to the problem of finding drivers.

- Children will not be accepted into the program unless parents take responsibility for getting the child to and from the program's location
- Volunteer drivers from community groups may be scheduled to drive daily or weekly
- All staff may be required to transport some clients each day
- A few staff members may have the total responsibility for scheduling and transporting.

(2) Vans

The mode used most frequently is the van or VW type bus. Nine passenger station wagons tend not to be as serviceable

as a carry-all vehicle. Vans can be obtained in 9 to 12 passenger models. If wide side doors are obtained, wheel chairs can be loaded with the aid of a light-weight ramp, and those physically handicapped can board easily. Vans have the advantage of being larger than a car, and thus can carry staff as well as a small group of children. They are more economical than a bus for a small group.

When staff are used, they can provide supervision and door to door delivery service of the child to his parents. Some vans are equipped with safety belts for an entire seat instead of individual belts, with the result that children can wiggle out easily. Individual belts would be better. (See section on safety for additional safety features that should be included in vans.) Recent studies by Ralph Nader have cited the VW bus in particular as being unstable and more subject to extensive damage in head-on collisions. Again, comparison shopping will prove useful.

(3) Taxis

Contracted taxi service can be especially useful in bringing small groups from scattered areas of the community. Several taxis used on a regular basis can provide for more flexible scheduling.

The Detroit Public Schools 1/ in 1965 used taxis to transport pupils enrolled in classes for the trainable mentally handicapped. The students were handled by three of the larger taxicab companies.

The cost was based on the regular fare, starting with the first

1/ Hayden, Eugene J. Special Education for Handicapped Chidren, Detroit Board of Education, Detroit, Michigan, 1965. p. 28.

pickup in the morning and from the school to the last stop in the afternoon. Charges were set at the beginning of the school year, subject to changes in schools or pupils. Constant review was done in order to reduce mileage whenever possible by consolidation.

The difficulties with taxi travel cited most frequently in our survey were non-availability and cost.

As a mode of public transportation, cabs are not an ideal solution. If a person is obviously handicapped, cab drivers are reluctant to pick them up because of increased chances of an accident. Further, in requesting daily cab service, clients have discovered that the drivers don't want to obligate themselves to a schedule which produces less revenue than cruising.

(4) Buses

For large programs, buses offer the advantages of cutting transportation costs, providing adequate supervision, and the sharing of the travel experience. The disadvantages, particularly in rural areas, are long periods, up to an hour and a half, required by lengthy routes. If a bus is not especially equipped for the agency, wheel chairs and litter patients may be a problem.

Buses can be useful frequently for field trips. Public buses can be utilized as a learning experience.

c. Recommendations for Action

(1) Modification of Equipment

A helpful modification would be the utilization

of the time spent on a long bus ride as a part of the education process. Pre-travel training could be taught by staff: teaching values of coins, recognition of route signs, appropriate behavior for public conveyances, etc. Another possibility would be to continue the training program of the day, reinforcing the lessons learned.

As an alternative to staff leadership, the car, bus or van could be equipped with a cassette tape player furnishing absorbing stories or exciting music. Taking the idea further, each seat on a bus or van could be equipped with an individual cassette player and earphones and each child could continue his own lessons at his own pace with individualized program learning. Perhaps the tapes could be on travel training and continue the repetition needed for absorption. This cassette would also enable the child to continue his school lessons at home.

(2) Development of Specialized Systems

There is a need for "handicapped transportation services" in the form of vans or taxis operated by a person knowledgeable on the problems of mentally and physically handicapped people. This type of service would be particularly useful to middle aged and elderly people who need to go to medical services, religious, cultural and recreational activities, as well as shopping and visiting. The service would be priced between a bus fare and a taxi fare.

Another source of customers might be children attending a "program" on a regular basis or people going to work. The customer would subscribe

to the service and the bus would come to the door and carry the subscriber to and from work. Routes might be irregular, responding to telephoned requests, or regular routes on various days might be established. This would allow customers to plan according to transportation available.

Summer Myers has described a taxi-bus system which could be developed for the handicapped.

> "A taxi-bus system would use a vehicle like a minibus to pick up passengers (at their doors or at any one of a very large number of street pickup points) shortly after they had called for service. A passenger's call for service is logged in by a computer along with all other origin-destination demands currently on the system. The computer knows the location of all its minibuses, how many passengers are on them, and where they are heading. It selects the right vehicle and dispatches it to the caller according to some optimal routing algorithm which has been programmed into the system.
>
> "The system has a good deal of operational flexibility, and can be programmed to give different levels of service for different fares. At one extreme, it might offer unscheduled, single-passenger, door-to-door service (like a taxi) or multi-passenger service (like a jitney). At the other extreme, it might offer something more like bus service, picking up passengers along a route according to a schedule specified a day or two in advance."1/

Dial-a-Bus systems are in existence now. A coalition of agencies might very well develop and operate such a system.

More in the future, but even more ideally suited for the retarded, are the personalized rapid transit systems. They provide small passenger vehicles, which the rider enters, registers his destination and is transported there automatically with no stopping.

1/ Myers, Summer. "Personal Transportation for the Poor" in Traffic Quaterly XXIV. No. 2, April 1970, pp. 191-206.

For more information on "Dial-a-Bus," personalized, rapid transit systems and other future transportation possibilities, see Tomorrow's Transportation, published in 1968 by the Office of Metropolitan Development of the Department of Housing and Urban Development.

There is also a need now for specialized individualized service for the severely and profoundly mentally handicapped. Perhaps, because of the problem of this small group -- 5% of the retarded -- it would be well to think in terms of vehicles and services for the physically handicapped, as well.

A private firm in Washington, D. C. uses a small school bus to operate a transportation service for the handicapped. Prices average $2 to $3 per person per day which is less than taxi fare. Many of the clients are physically as well as mentally handicapped. Parents are sometimes asked to volunteer as aides. The vast majority of passengers are children involved in schools or organizations.

One of the problems this company has is the uneveness of the demand for services. There are not, in this case, sufficient requests between programs starting and ending, by adults, to keep a driver fully employed.

Another problem is that the supplier of services is not fully aware of geographically near-by needs for service.

Such a service is needed and ways should be found to solve present operating and financial problems.

(3) Training of Transportation Personnel

Agencies should hold frequent orientation sessions for their drivers including such areas as:

- safety laws
- use of safety equipment
- behavior patterns of the retarded, capabilities and limitations

If aides are used on buses, they should be expected to handle discipline problems, epileptic seizures and other situations which could cause emergencies.

Both drivers and aides should be chosen on the basis of their capability to communicate with their passengers. They should also present "a good image" to the children.

(4) Legislation

- Federal legislation is needed to enable DOT to subsidize non-routed systems for the handicapped.
- State legislation should require enforcement of safety features, especially concerning seat belts, attendants, brakes, training of drivers.
- State legislation providing transportation should be flexible so that children may be best served.
  - For example, if a bus for handicapped children is provided after school and handicapped children are required to ride it, then the child may be unable to participate in a special after school clinic program because he must be at the school to ride the bus.

(5) Development of Coordinated Center

Consideration should be given to the development of a coordinated center. Because of the similarity of problems

of the physically handicapped and the mentally handicapped, the Chester County Schools in Chester County, Pennsylvania, decided to centralize all special student facilities for education, therapy, and counseling.1/

Centralized facilities eliminated the following transportation problems:

(1) Routes cannot be direct

(2) Various groups of children (with different handicaps) must be delivered to different classroom locations

(3) Starting and dismissal times have to be staggered

(4) Routes overlap because of varying locations of classes and particular handicap served at each one

(5) Children spend excessive time on road

(6) Integrate Transportation Into Other Activities

Transportation, of course, as important as it is, is only one of the many needs in life of the mentally retarded. Rather than set up new or specific agencies to deal with this problem, current agencies responsible for comprehensive services for the retarded and agencies providing specific services, should all consider transportation as one of their responsibilities. No matter how good a program is, it loses effectiveness in direct proportion to the difficulty people encounter in reaching it.

In 1963, the President's Panel on Mental Retardation issued a Report

1/ Planning a Special Education Building for Chester County, Pennsylvania. Chester County Schools, West Chester, Pennsylvania. 1968. pp. 65-66.

of the Task Force on Coordination.[1]/ In spite of the passage of time, the basic principles set forth here are valid and indispensable. It calls for the establishment of State interagency councils which would take leadership and responsibility in planning and stimulating needed programs, assessing their proper balance and geographic distribution, determining the appropriate allocation of responsibility among a variety of public and private agencies and assuming their continuity from the point of view of the retarded individual.

Activities on the State level should include implementation plans for transportation as well as developing necessary legislation. Many states already have such a committee. The committee's work might very well resemble that recorded in a January 1970 memorandum from the Massachusetts Bureau of Retardation to the Governor's Task Force on Transportation suggesting that the following issues require research and evaluation:

1. Lack of comprehensive route planning.
2. Lack of regulations, standards and guidelines which govern these programs (of transportation of the handicapped).
3. Lack of trained administrative transportation staff in public agencies to fully implement existing programs or the development of new ones.
4. Expressed professional and parental dissatisfaction with the quality and mode of current transportation.
5. The need to develop alternative modes within the context of existing allocations and projected demands.

1/ "Report of the Task Force on Coordination," President's Panel on Mental Retardation, published by HEW Public Health Service, Washington, D. C., 1963.

A helpful booklet for establishing activities is put out by the Public Health Service of the Department of Health, Education, and Welfare: Mental Retardation Guidelines for State Intragency Planning (Publication No. 1192) which was printed in May 1964.

Although all states are required by Public Law 88-156 to submit written plans for comprehensive services for the retarded, a study done of the subjects covered in these volumes of reports, indicates that transportation was not included![1]/

In addition to State coordinating councils, local planning and coordinating councils should be formed on a local basis to plan for the total needs of the retarded. Local councils should foster cooperation and joint planning for transportation between sources of service. They could sponsor a fixed center in each community for information and referral, not only for services available, but also for transportation.

In addition to seeing that an array of services are available, there should be a "life counseling service" in which each individual has one counselor who would coordinate services the particular individuals' need. For help in developing a local coordinating and planning organization, the following booklet is useful: Planning of Facilities for the Mentally Retarded, Publication No. 1181-B-1, Public Health Service, U. S. Department of Health, Education and Welfare, Washington, D. C. 20201, 1964.

(7) Develop Rural Resources

A State Rural Areas Committee of the Handi-

1/ From An Analysis of the Final Reports of the 51 States and Territories Using Public Law 88-156 Grants to Conduct State Mentally Retarded Planning Prospects. March, 1967.

capped consisting of people concerned with the needs of the physically and mentally handicapped might be useful in jointly developing transportation resources in rural areas. Resources[1]/ might include:

- State and County Services of State Land Grant Universities
- Vocational Rehabilitation Service
- Employment Security
- Vocational Agriculture and Vocational Home Economics Departments
- State Departments of Vocational Education
- Farmers Home Administration (provides credit for homes or businesses)
- Community Action Programs
- State and County Public Health Departments
- State and Local Welfare Departments
- Society for Crippled Children and Adults
- Easter Seal Society
- Goodwill Industries
- Veterans Administration

(8) Federal Programs of Interest to the President's Committee on Mental Retardation

There are a number of Federal programs to which the President's Committee could and should make an input as to the characteristics, problems and needs of the mentally retarded. (These

1/ From Developing Programs for the Rural Handicapped Extension Service, U. S. Department of Agriculture, September 1970, p. 5.

programs are referenced by Catalogue Federal Domestic Assistance identification numbers.) These include:

- Urban Mass Transportation Managerial Training Grants (20.503)

  Its purpose is to teach awareness of problems of mental retardation to employees of public bodies or employees of private urban transit companies. PCMR should be available as a resource.

  Urban Mass Transportation Administration, DOT

- Urban Mass Transportation Grants for University Research 920.504)

  PCMR should ensure that awareness of problems of mental retardation is taught in self-sustaining educational facilities which are used to help solve urban transportation problems.

  Urban Mass Transportation Administration, DOT

- Handicapped Regional Resource Centers (13.450)

  PCMR should encourage inclusion of travel training and transportation programs for the mentally retarded in all handicapped programs.

  Office of Education, HEW

- Handicapped Teachers Education (13.451)

  PCMR should ensure that transportation problems of mentally retarded are included in curriculums.

  Office of Education, HEW

- Library Services - State Institutional Library Services (13.466)

PCMR should ensure that books on travel training are included.

Office of Education, HEW

Another area PCMR might agressively pursue is that of loans to small businessmen attempting to set up or enlarge handicapped transportation services.

PCMR should maintain close liaison with Father Rocha, special assistant to the Secretary of the Department of Transportation, who is responsible for programs for transportation of the elderly and handicapped. He should be encouraged to work with the National Highway Safety Bureau and the National Safety Board for stricter general safety standards on all public and private conveyances, especially given the fact that the things that make travel easier and safer for the entire population also do so for the retarded.

3. ALTERNATIVES TO TRANSPORTATION

The Wisconsin Department of Public Instruction[1]/ will provide for placement in boarding homes when transportation between the mentally retarded child's home and school is not possible. The parent selects the home from those licensed by child-placing agencies.

The Board will pay tuition in another district, and if the distance to be traveled is over 2 miles, may provide transportation.

The state superintendent may grant permission for a handicapped child to be transported to a school in another district if he resides on an established bus route and if this results in equal or better

1/ Administration of Boarding Homes for Handicapped Children, Policies and Procedures, Wisconsin Department of Public Instruction, Madison, Wisconsin. January 1966. P. 1.

educational opportunities for the child.

Two responses on the questionnaires were a little surprising. As a solution to current transportation problems, one suggested moving the center. Another suggested that the parents move.

SOURCES OF GOVERNMENT FUNDING

Potential sources of funding for equipment and manpower agencies include a wide variety of resources. Some, of course, are unique to their particular locality, clientele, and interests of the local community. But each source deserves some thought. As volunteer resources have been mentioned previously, this section deals only with government agencies.

1. FEDERAL GOVERNMENT

The following programs are described in the Catalog of Federal Domestic Assistance and seem appropriate sources of funding for exciting innovative projects for the transportation of the mentally retarded. No offices have been contacted because commitments will have to depend on the particular request submitted, timing, and the quantity and quality of other projects submitted. The numbers refer to the Catalog of Federal Domestic Assistance and are included so that additional information on the programs can be easily found.[1]/

Rehabilitation Training (13.733)

State vocational rehabilitation agencies, other public agencies and nonprofit organizations, agencies and educational institutions may apply for grants to cover part of the cost of training projects for the mentally retarded and traineeships for specialized causes in rehabilitation for full-time students and people employed in serving the disabled

Social and Rehabilitation Service, HEW

Rehabilitation Services Projects-Expansion Grants (13.731)

1/ The catalog can be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 for $7.25

State vocational rehabilitation agencies and other public and private nonprofit organizations (through the state vocational rehabilitation agency) can apply for project grants to prepare for, and initiate special programs to expand vocational rehabilitation services where such programs show promise of substantially increasing the numbers of persons vocationally rehabilitated.

Social and Rehabilitation Service, HEW

- Rehabilitation Services and Facilities - Basic Support (13.746)

State vocational rehabilitation agencies provide transportation payments to individuals to secure vocational rehabilitation services.

Social and Rehabilitation Service, HEW

- Strengthening State Departments of Education - Grants for Special Projects (13.485)

State Education Departments may apply for special project funds to establish special services that may help to solve the problems common to state educational agencies.

Office of Education, HEW

- School Equipment Loans to Nonprofit Private Schools (13.479)

Nonprofit private schools, elementary and secondary, may apply for loans to purchase eligible equipment and materials.

Office of Education, HEW

- Urban Mass Transportation Research, Development, and Demonstration Grants

Public agencies and nonprofit organizations are eligible to apply for project grants to develop and test new facilities,

equipment, pricing and operating policies, traffic flow, coordination of various modes of transportation and basic research, providing leadership in the development of new techniques.

Urban Mass Transportation Administration, DOT

- Urban Mass Transportation Capital Improvement Grants and Loans (20.500 and 20.501)

Public agencies may acquire equipment to provide service for the public as general or special service. (Private transportation companies may participate through contractual arrangements with a public agency.)

Urban Mass Transportation Administration, DOT

- Educationally Deprived Children - Handicapped (13.427

State agencies and state supported and state operated schools for handicapped children are eligible for participation. Local educational or local public schools are not eligible.

Formula grants may be used for mobility training, equipment, etc., in public schools.

Office of Education, HEW

- Child Development - Technical Assistance (13.601)

States and other public and private organizations in the area of retarded children's services may request advisory services and counseling from assistant regional directors. Office of Child Development.

Office of the Secretary, HEW

- Handicapped - Research and Demonstration (13.443)

State or local educational agencies, public and private institutions of higher learning and other public or private educational or research agencies and organizations are eligible to receive grants and contracts for research and demonstration projects to develop knowledge about and thus improve the education of handicapped children.

Office of Education, HEW

Rehabilitation Services Projects - Projects with Industry (13.730)

Any industrial, business or commercial enterprise, labor organization, or employer, industrial or community trade association, or other agency or organization with the capacity to arrange, coordinate or conduct training and other employment programs for the handicapped in a realistic work setting, may enter into contracts or arrangements with the Commissioner of the Rehabilitation Services Administration. Contracts or jointly financed cooperative arrangements are made with employers or organizations to prepare handicapped individuals, in a realistic work setting, for gainful employment in the competitive labor market.

Social and Rehabilitation Service, HEW

Agencies should not be embarrassed or intimidated to ask for Government funds for their programs. Anthony J. Celebrezze, when Secretary of HEW, said:

"While the human values represented in the achievement (of the

> handicapped becoming self-supporting, self-reliant members of society) are by far the most important, it is significant that for every Federal dollar invested in rehabilitation, the individual returns an average of $7.00 to the National Treasury through taxes on new earnings. Without this opportunity, the cost of his dependency would have been borne by the public purse."1/

In addition, because transportation provides access to the community and its activities, the extent to which transportation is unavailable to any group is the denial of that group's full participation in the community.

Experience has shown that our man-made environment can either frustrate or help disabled people to become rehabilitated, trained and placed in suitable jobs. Thus the federal government is concerned about the availability of transportation facilities, accessibility and usability of transportation systems by the disabled, and the excessive costs of private transportation which severely impaired people must utilize when they cannot use public facilities.2/

2. STATE GOVERNMENT

> State government departments vary greatly according to name and function. All potential useful agencies should be checked out.
>
> Department of Education
>
> May provide for payment to school districts for transportation of children within certain mileage to local schools
>
> May provide for payment for transportation to out-of-district schools with special programs

---

1/ The Mentally Retarded...Progress in Their Rehabilitation. Vocational Rehabilitation Administration, HEW, Washington 20201

2/ Transportation and the Handicapped from a report presented to the President's Committee on Employment of the Handicapped, Washington, D.C., May 1 by the intergovernmental ad hoc committee on transportation of the Committee's Advisory Council.

May provide for payment to foster home parents so child can attend special school without lengthy daily commuting

May provide for funds to be used to supplement driver education courses for the retarded

- Department of Health

May provide for transportation by bus of the mentally retarded in hospitals

May provide funds for the transportation of clients to to receive necessary services

- Department of Rehabilitation

May provide transportation services to rehabilitation centers

- Department of Welfare

May provide transportation allowance to certain categories of people receiving public assistance

3. LOCAL GOVERNMENT

Like state governments, local governments vary greatly according to function and responsibility but are well worth investigating.

- Department of Recreation

May provide department vans and vehicles for people in its summer recreation program

- Department of Social Services

May provide transportation for residential clients to outside activities

- Department of Transportation

May provide buses or drivers for special excursions or for daily activities

SELECTED BIBLIOGRAPHY[1/]

Suo, Minnie A.; Willemin, Helen. Educable Mentally Retarded; Level II. Fort Worth Public Schools, Texas. 1969. Unit VI, pp. 75-86.

A three week transportation unit curriculum guide for educable retarded children with mental ages from 5.0 to 6.6. There is an introduction, a listing of objectives, a listing of motivating activities, pupil activities to physical, personal and social, and vocational competencies, evaluation questions, suggested films and books and stories. Level I also includes a unit for transportation.

EC 003 951 ED 030 238

Jones, Phillip R. "Transportation Services for the Retarded" in Scheerenberger, R. C. Mental Retardation, Selected Conference Papers. Division of Mental Retardation Services, Illinois State Department of Mental Health, Springfield, Illinois. 1969. pp. 161-166.

Experience in providing transportation for handicapped children in Champaign Community Schools, including educable and trainable mentally retarded children, provides the basis for this paper which examines methods, problems, and costs of transporting children.

EC 004 501 ED 033 491

Egg, Maria. The Different Child Grows Up. John Day Co., New York, N.Y. 1965. pp. 55-63.

Chapter entitled "On the Street" describes the need for early training in skills needed for independent travel.

Eaton, Mrs. Martin, Moderator. "Transportation Services" in James, George, and Others. Selected Papers from Professional Programs, Segments of United Cerebral Palsy's Annual Conference (New York, March 10-12, 1966). United Cerebral Palsy Association, New York. March 1966. 2 pages of 79 pages.

Brief listing of suggestions made on techniques of handling transportation in United Cerebral Palsy Affiliates.

EC 002 498 ED n.a.

1/ Numbers refer to numbering system of Council for Exceptional Children

Robert Eagan. "Should the Educable Mentally Retarded Receive Driver Education?" from Exceptional Children, vol. 33, no. 5, January 1967. pp. 323 and 324.

A discussion of testing results of a group of educable mentally retarded individuals versus a control group.

Cortazzo, Arnold and Sansone, Robert. Travel Training. Sunland Training Center, Miami, Florida. 14 pages.

A discussion of experiences in 8 centers teaching travel skills to children with I.Q.'s between 12 and 50.

"Public Transportation Training" in the Exceptional Parent. June/July, 1971. pp. 25-27.

A general description of training children with disabilities to use public transportation.

Planning a Special Educational Building For Chester County, Pennsylvania. Chester County Schools, West Chester, Pennsylvania. 1968. pp. 87.

Includes description of special education program for trainable mentally retarded, brain injured, socially and emotionally disturbed, and physically, visually, or auditorially handicapped, as well as need for facilities, equipment, staff and transportation.

EC 005 143 ED 036 943

Hayden, Eugene J. Special Education for Handicapped Children. Detroit Board of Education, Detroit, Michigan. 1965. 33 pages.

A brief general description of the Detroit Public Schools' program for handicapped children.

EC 000 149 ED 011 423

Guide to Practices and Procedures for the Slow Learning Program in the Elementary Schools. Cincinnati Public Schools, Cincinnati, Ohio. 1965. 11 pages.

Discusses procedures for administering a modified curriculum program for slow learners (IQ 50-75) in elementary grades.

EC 000 251 ED n.a.

Administration of Boarding Homes and Handicapped Children, Policies and Procedures. Wisconsin Department of Public Instruction. Madison, Wisconsin. January, 1966. 8 pages.

Provisions of Wisconsin statutes for placement of physically and/or mentally handicapped children in boarding homes when transportation between the child's home and school is not possible.

EC 000 009 ED 010 720

How Michigan Serves the Mentally Handicapped, Facts about the Administration of the Michigan Program. Michigan State Department of Education. Lansing, Michigan. August 1966. 6 pages.

A description of all of Michigan's programs for the mentally handicapped.

EC 000 017 ED 011 1

Aaron, James. Driver Education for the Handicapped Resource Guide - Vol. II. Safety Center, Southern Illinois University. Carbondale, Illinois. Annotated Bibliography. 55 pages.

Driver Education for the Handicapped. Traffic and Safety Education, Office of Superintendent of Public Instruction. Springfield, Illinois. Mimeographed. 11 pages.

Driver Education Manual for the High School Educable Mentally Retarded Student. Also teacher supplement. Division of Curriculum and Instruction. Milwaukee Public Schools, Vliet Street, Milwaukee, Wisconsin. 39 pages.

Driver Education for Handicapped Children - Guidelines for Driver Education and Traffic Safety Curriculum. Bulletin #33. Department of Education. St. Paul, Minnesota. Chapter 5.

Driver Education Programming for the Mentally Handicapped. Driver and Traffic Safety Education, Department of Education. Lansing, Michigan. 1968.

Reading for Safety: Common Signs of Community Service and Safety. Dinuba Public Schools. Dinuba, California. 1958.

DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
WASHINGTON, D C 20201

OFFICIAL BUSINESS

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF H.E.W.

CEC Information Center MR-?
Council for Exceptional Children
1411 Jeff. Davis Hgwy., Suite 900
Arlington, Va. 22202

DHEW Publication No. (OS) 72-40